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ART UNIT	PAPER NUMBER
3711	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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PTONotifications@procopio.com

Office Action Summary	Application No.	Applicant(s)	
	10/722,580	VOGES ET AL.	
	Examiner	Art Unit	
	Stephen L. Blau	3711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 November 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,10-29,40-69 and 71-88* is/are pending in the application.

4a) Of the above claim(s) *3,4,10-19,22-28,40-69,71-78,80-86 and 88* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-2, 20-21, 29, 79 and 87* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Newly submitted claim 3 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: In amendment dated 3 November 2008 claim 3 was directed to a step of collecting date related to the golfer's current golf equipment and using it to determine if the golfer's swing technique should be modified. Now in amendment dated 13 November 2009 claim 3 has been amended to change the method to a step of collecting date related to the golfer's current golf equipment and using it to determine if the golfer's golf equipment should be modified.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 3-4 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Response to Amendment

2. The changes to claim 3 is agreed with and the objection to claim 3 under 35 U.S.C. 132(a) because it introduces new matter into the disclosure is removed.

3. The amendment filed 13 November 2009 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

a. In claim 1 the step of receiving launch data to optimize a launch angle, velocity, and spin rate relative to each other based on a non-linear relationship between launch angle, velocity, and spin rate is considered new matter. The Examiner was unable to find anywhere in the original filed disclosure this optimization is based on non-linear relationship between launch angle, velocity, and spin rate.

b. In claim 87 optimizing launch angle, velocity, and spin rate relative to each other based on a non-linear relationship between launch angle, velocity, and spin rate.

c. With respect to claim 1, the Examiner also could never find in the originally disclosed specification that in the launch module is were the optimization of launch angle, velocity and spin rate relative to each other occurs. In paragraph [0054] it states how this optimization is done by nothing states that this is done in the launch module.

Applicant is required to cancel the new matter in the reply to this Office Action.

Specification

4. The specification is objected to under rule 1.71 of 37 C.F.R. for not being written in an exact and precise way as to enable one skilled in the art to use the same. The specification does not disclose how one skilled in the art is to determine if the golfer's swing technique should be modified based on collecting information related to the current status of the golfer's game ([028], for claim 2).

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claim 1-2, 20-21, 29, 79 and 87 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. With respect to claim 1, it is uncertain what non-linear relationship between launch angle, velocity, and spin rate is. All these properties are of the ball after it is hit. The specification did not explain this limitation. With respect to

claim 2, it is uncertain how the golfer's swing technique should be modified based on collecting information related to the current status of the golfer's game.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-2, 20-21, 29, 79 and 87 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 recites the limitation " non-linear relationship between launch angle, velocity, and spin rate" in lines 17-19. There is insufficient antecedent basis for this limitation in the specification. A non-linear relationship is never mentioned.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 1, 29, and 79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson (2003/0008731) in view of Gobush (6,758,759), Evans (3,792,863), and Boehm (6,611,792).

Anderson discloses a method for fitting golf equipment (title), a swing module in the form of computational device (Abstract, Figs. 3-4, [0042]) collecting data related to the golfers swing in the form of shaft flex using sensors as strain gauges [0042], in a launch module ([0042], [0047]) monitor how the golfer launches a golf ball using a particular club to obtain launch data in the form of using a digital camera and tracking features of a ball [0026],[0030],[0036] to obtain launch data including launch angle [0042], and changing one aspect of a golf club in order to achieve an optimum club [0050] [0051].

Anderson lacks swing data comprising a load time, load pattern, peak load, swing ramp, and ramp potential or a combination of at least some of these parameters, determining if a golfer's swing technique should be modified based at least in part on the collected swing data, when it is determined that the golfer's swing technique should be modified, then using the swing data to correct the swing flaws, when it is determined that the golfer's swing technique should not be modified, in a launch module receive launch data to optimize a launch angle, velocity and spin rate relative to each other based on non-linear relationships between the launch angle, velocity and spin rate, iteratively changing a combination of characteristics of at least one of the shaft and the head until the optimized launch angle, velocity and spin rate are achieved, in the launch module, obtain launch data from the launch monitor related to how the golfer launches a ball using the change characteristics, using captured images of a swing to provide instruction to the golfer, and determining whether the load pattern of a golfer's swing includes a single crest and using the swing data to correct the flaws comprising using

the swing data to determine appropriate modifications to the golfer's swing to produce an incline load pattern.

Gobush discloses swing instruction to correct swing flaws (Col. 18, Lns. 55-57) during a method of fitting of a club to a golfer (Col. 2, Lns. 29-32) using cameras (Col. 1, Lns. 60-67). Evans discloses collecting swing data using strain gages (Abstract) comprising a combination of a load time, load pattern, peak load, and swing ramp (Fig. 2), a step of determining if a golfer's swing technique should be modified based at least in part on the collected swing data (Fig. 2), when it is determined that the golfer's swing technique should be modified, then using the swing data to correct the swing flaws in the form of having an instructor (Col. 4, Lns. 6-67) and also include fitting steps (Col. 4, Lns. 60-67) and determining whether the load pattern of a golfer's swing includes a single crest and using the swing data to correct the flaws comprising using the swing data to determine appropriate modifications to the golfer's swing to produce an incline load pattern (Fig. 2, Col. 4, Lns. 6-67). In view of the patents of Gobush and Evans it would have been obvious to modify the method of fitting golf equipment of Anderson to include determining if a golfer's swing technique should be modified, when it is determined that the golfer's swing technique should be modified correct the swing flaws, and when it is determined that the golfer's swing technique should not be modified continue on with the fitting procedure in order to have meaningful launch data when a golfer is swinging a club during a fitting process and in order to optimize the time of the fitting session by also improving the golfer's swing so that both an optimum swing and optimum equipment are both achieved. Some beginner golfers are not going to have a

swing worth testing without a minimal amount of swing instruction prior to the testing and evaluation steps to fit a beginner golfer with a set of clubs. In view of the patent of Evans it would have been obvious to modify the method of fitting golf equipment of Anderson to have a step of collecting swing data from the shaft strain gages comprising a combination of a load time, load pattern, peak load, and swing ramp, determining if a golfer's swing technique should be modified based at least in part on the collected swing data, when it is determined that the golfer's swing technique should be modified, then using the swing data to correct the swing flaws, determining whether the load pattern of a golfer's swing includes a single crest and using the swing data to correct the flaws comprising using the swing data to determine appropriate modifications to the golfer's swing to produce an incline load pattern in order to have a load on a shaft of a club which will maximize the performance of the club. In view of Gobush it would have been obvious to modify the method of fitting golf equipment of Anderson to have steps of using captured images of a swing to provide instruction to the golfer in order to be able to show the golfer his actual swing and how it needs to change during the instruction process.

Gobush discloses a method of fitting clubs (Col. 2, Lns. 29-32) using cameras (Col. 1, Lns. 60-67), obtain launch data including a launch angle, velocity and speed (Claim 21), in a launch module receive launch data to optimize a launch angle, velocity and spin rate relative to each other in the form of ideal launch conditions and maximizing distance (Col. 9, Lns. 1-5, Fig. 8), iteratively changing a combination of characteristics of at least one of the shaft and the head (Col. 9, Lns. 4-6) until the

optimized launch angle, velocity and spin rate are achieved (Col. 19, Lns. 11-24, S114), in the launch module, obtain launch data from the launch monitor related to how the golfer launches a ball using the change characteristics (Fig. 8, Col. 9, Lns. 1-6), carry distance and directional accuracy, and being able to predict landing points based on ball velocity, flight direction and ball spin (Col. 1, Lns. 13-23) and a step of providing the ideal launch conditions for that player allowing a player to make changes and maximize distance (Col. 9, Lns. 1-6). In view of Gobush it would have been obvious to modify the method of fitting equipment of Anderson to obtain launch data of ball velocity and spin rate in order to evaluate the performance of carry distance and directional accuracy, and being able to predict landing points based on ball velocity, flight direction and ball spin. In view of Gobush it would have been obvious to modify the method of fitting equipment of Anderson to in a launch module receive launch data to optimize a launch angle, velocity and spin rate relative to each other, iteratively changing a combination of characteristics of at least one of the shaft and the head until the optimized launch angle, velocity and spin rate are achieved, in the launch module, obtain launch data from the launch monitor related to how the golfer launches a ball using the change characteristics, so that a player is using ideal launch conditions for his ability and able to use less strokes while playing a round of golf and in order to improve hitting distance.

Boehm discloses matching velocity with a combination of launch angle and spin rate to achieve optimal ball flight characteristics in the form of maximum distance and control (Table 1), receive launch data to optimize a launch angle, velocity and spin rate relative to each other based on non-linear relationships between the launch angle,

velocity and spin rate in the form of launch angle and spin rate are only determined in part by the club implying that there is other factors (Col. 6, Lns. 3-13). Clearly how a player swings and hits a ball also in part determines launch angle and spin rate and different golfers have different swings causing this relationship to be non-linear between launch angle, velocity and spin rate. In view of the patent of Boehm it would have been obvious to modify the fitting method of Anderson to have a step of matching velocity with a combination of launch angle and spin rate to achieve maximum distance, receive launch data to optimize a launch angle, velocity and spin rate relative to each other based on non-linear relationships between the launch angle, velocity and spin rate, to optimize a launch angle, velocity and spin rate relative to each other based on non-linear relationships between the launch angle, velocity and spin rate in order to maximize a hitting distance for a given golfer's club speed and/or in order to have a club which will decrease the number of strokes required to complete a hole.

11. Claim 87 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson (2003/0008731) in view of Gobush (6,758,759), Evans (3,792,863), and Boehm (6,611,792) as applied to claims 1, 29, and 79 above, and further in view of Miller (Golf Digest article 2002).

Anderson lacks selecting a maximum ceiling height to limit the launch angle, spin rate, or a combination there for a given velocity and where optimizing the launch angle, velocity, and spin rate relative to each other based on non-linear relationships between the launch angle, velocity, and spin rate comprises matching velocity with a combination

of launch angle and spin rate determined based at least in part on the maximum ceiling height.

Miller discloses limiting the height of a ball flight in order to minimize the effects of the wind and minimize flying the ball into trouble (First paragraph). In view of Miller it would have been obvious to modify the method of fitting golf equipment of method of Anderson to have a step of selecting a maximum ceiling height for a golf ball trajectory and wherein matching the velocity with a combination of launch angle and spin rate is based in part on the maximum ceiling height in order to minimize the effects of the wind and minimize flying the ball into trouble. As such the optimizing of a launch angle, velocity and spin rate relative to each other would also be based on non-linear relationships between the launch angle, velocity and spin rate because a ceiling requirement would affect the selection of the launch angle, velocity and spin rate.

12. Claims 1, 29, are 79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson (2003/0008731) in view of Gobush (6,758,759), Evans (3,792,863), and Naruo (2004/0033845).

Anderson discloses a method for fitting golf equipment (title), a swing module in the form of computational device (Abstract, Figs. 3-4, [0042]) collecting data related to the golfers swing in the form of shaft flex using sensors as strain gauges [0042], in a launch module ([0042], [0047]) monitor how the golfer launches a golf ball using a particular club to obtain launch data in the form of using a digital camera and tracking features of a ball [0026],[0030],[0036] to obtain launch data including launch angle

[0042], and changing one aspect of a golf club in order to achieve an optimum club [0050] [0051].

Anderson lacks swing data comprising a load time, load pattern, peak load, swing ramp, and ramp potential or a combination of at least some of these parameters, determining if a golfer's swing technique should be modified based at least in part on the collected swing data, when it is determined that the golfer's swing technique should be modified, then using the swing data to correct the swing flaws, when it is determined that the golfer's swing technique should not be modified, in a launch module receive launch data to optimize a launch angle, velocity and spin rate relative to each other based on non-linear relationships between the launch angle, velocity and spin rate, iteratively changing a combination of characteristics of at least one of the shaft and the head until the optimized launch angle, velocity and spin rate are achieved, in the launch module, obtain launch data from the launch monitor related to how the golfer launches a ball using the change characteristics, using captured images of a swing to provide instruction to the golfer, and determining whether the load pattern of a golfer's swing includes a single crest and using the swing data to correct the flaws comprising using the swing data to determine appropriate modifications to the golfer's swing to produce an incline load pattern.

Gobush discloses swing instruction to correct swing flaws (Col. 18, Lns. 55-57) during a method of fitting of a club to a golfer (Col. 2, Lns. 29-32) using cameras (Col. 1, Lns. 60-67). Evans discloses collecting swing data using strain gages (Abstract) comprising a combination of a load time, load pattern, peak load, and swing ramp (Fig.

2), a step of determining if a golfer's swing technique should be modified based at least in part on the collected swing data (Fig. 2), when it is determined that the golfer's swing technique should be modified, then using the swing data to correct the swing flaws in the form of having an instructor (Col. 4, Lns. 6-67) and also include fitting steps (Col. 4, Lns. 60-67) and determining whether the load pattern of a golfer's swing includes a single crest and using the swing data to correct the flaws comprising using the swing data to determine appropriate modifications to the golfer's swing to produce an incline load pattern (Fig. 2, Col. 4, Lns. 6-67). In view of the patents of Gobush and Evans it would have been obvious to modify the method of fitting golf equipment of Anderson to include determining if a golfer's swing technique should be modified, when it is determined that the golfer's swing technique should be modified correct the swing flaws, and when it is determined that the golfer's swing technique should not be modified continue on with the fitting procedure in order to have meaningful launch data when a golfer is swinging a club during a fitting process and in order to optimize the time of the fitting session by also improving the golfer's swing so that both an optimum swing and optimum equipment are both achieved. Some beginner golfers are not going to have a swing worth testing without a minimal amount of swing instruction prior to the testing and evaluation steps to fit a beginner golfer with a set of clubs. In view of the patent of Evans it would have been obvious to modify the method of fitting golf equipment of Anderson to have a step of collecting swing data from the shaft strain gages comprising a combination of a load time, load pattern, peak load, and swing ramp, determining if a golfer's swing technique should be modified based at least in part on the collected

swing data, when it is determined that the golfer's swing technique should be modified, then using the swing data to correct the swing flaws, determining whether the load pattern of a golfer's swing includes a single crest and using the swing data to correct the flaws comprising using the swing data to determine appropriate modifications to the golfer's swing to produce an incline load pattern in order to have a load on a shaft of a club which will maximize the performance of the club. In view of Gobush it would have been obvious to modify the method of fitting golf equipment of Anderson to have steps of using captured images of a swing to provide instruction to the golfer in order to be able to show the golfer his actual swing and how it needs to change during the instruction process.

Gobush discloses a method of fitting clubs (Col. 2, Lns. 29-32) using cameras (Col. 1, Lns. 60-67), obtain launch data including a launch angle, velocity and speed (Claim 21), in a launch module receive launch data to optimize a launch angle, velocity and spin rate relative to each other in the form of ideal launch conditions and maximizing distance (Col. 9, Lns. 1-5, Fig. 8), iteratively changing a combination of characteristics of at least one of the shaft and the head (Col. 9, Lns. 4-6) until the optimized launch angle, velocity and spin rate are achieved (Col. 19, Lns. 11-24, S114), in the launch module, obtain launch data from the launch monitor related to how the golfer launches a ball using the change characteristics (Fig. 8, Col. 9, Lns. 1-6), carry distance and directional accuracy, and being able to predict landing points based on ball velocity, flight direction and ball spin (Col. 1, Lns. 13-23) and a step of providing the ideal launch conditions for that player allowing a player to make changes and maximize

distance (Col. 9, Lns. 1-6). In view of Gobush it would have been obvious to modify the method of fitting equipment of Anderson to obtain launch data of ball velocity and spin rate in order to evaluate the performance of carry distance and directional accuracy, and being able to predict landing points based on ball velocity, flight direction and ball spin. In view of Gobush it would have been obvious to modify the method of fitting equipment of Anderson to in a launch module receive launch data to optimize a launch angle, velocity and spin rate relative to each other, iteratively changing a combination of characteristics of at least one of the shaft and the head until the optimized launch angle, velocity and spin rate are achieved, in the launch module, obtain launch data from the launch monitor related to how the golfer launches a ball using the change characteristics, so that a player is using ideal launch conditions for his ability and able to use less strokes while playing a round of golf and in order to improve hitting distance.

Naruo discloses matching velocity with a combination of launch angle and spin rate to achieve maximum distance (Abstract, [0001], [0015], [0020], Fig. 3), receive launch data to optimize a launch angle, velocity and spin rate relative to each other based on non-linear relationships between the launch angle, velocity and spin rate in the form of launch angle, velocity and spin rate are dependent on how a player swings and hits a ball causing this relationship to be non-linear between launch angle, velocity and spin rate. In view of the patent of Naruo it would have been obvious to modify the fitting method of Anderson to have a step of matching velocity with a combination of launch angle and spin rate to achieve maximum distance in order to maximize a hitting

distance for a given golfer's club speed and/or in order to have a club which will decrease the number of strokes required to complete a hole.

13. Claim 87 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson (2003/0008731) in view of Gobush (6,758,759), Evans (3,792,863), and Naruo (2004/0033845) as applied to claims 1, 29, and 79 above, and further in view of Miller (Golf Digest article 2002).

Anderson lacks selecting a maximum ceiling height to limit the launch angle, spin rate, or a combination there for a given velocity and where optimizing the launch angle, velocity, and spin rate relative to each other based on non-linear relationships between the launch angle, velocity, and spin rate comprises matching velocity with a combination of launch angle and spin rate determined based at least in part on the maximum ceiling height.

Miller discloses limiting the height of a ball flight in order to minimize the effects of the wind and minimize flying the ball into trouble (First paragraph). In view of Miller it would have been obvious to modify the method of fitting golf equipment of method of Anderson to have a step of selecting a maximum ceiling height for a golf ball trajectory and wherein matching the velocity with a combination of launch angle and spin rate is based in part on the maximum ceiling height in order to minimize the effects of the wind and minimize flying the ball into trouble. As such the optimizing of a launch angle, velocity and spin rate relative to each other would also be based on non-linear

relationships between the launch angle, velocity and spin rate because a ceiling requirement would affect the selection of the launch angle, velocity and spin rate.

14. Claim 2 rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson (2003/0008731) in view of Gobush (6,758,759), Evans (3,792,863), and Naruo (2004/0033845) as applied to claims 1, 29, and 79 above, and further in view of Sayers (4,059,270).

Anderson lacks collecting information related to the current status of the golfer's game and using it to determine whether the golfer's swing technique should be modified.

Sayers discloses custom fitting clubs to golfer where a golfer has a certain personal timing, coordination and physical strength (Col. 1, Lns. 18-26). In view of the patent of Sayers it would have been obvious to modify the method of fitting a golfer with equipment of Anderson with the steps of collecting information related to the current status of the golfer's game and using it to determine whether the golfer's swing technique should be modified in order to maximize on a player's personal timing, coordination and physical strength in playing a round of golf.

15. Claims 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson (2003/0008731) in view of Gobush (6,758,759), Evans (3,792,863), and Naruo (2004/0033845) as applied to claims 1, 29, and 79 above, and further in view of Pelz (5,039,098) and Engfer (5,749,792).

Anderson lacks changing a grip based at least in part on the collected launch data in order to achieve an optimal ball flight, collecting data related to how the golfer's swing launches a ball with the new grip and specifying equipment base on the new grip.

Pelz discloses a method of fitting a golfer with a club comprising a plurality of heads each comprising a portion of a quick disconnect, providing a plurality of shafts, each shaft comprising a mating portion of a quick disconnect system, selecting a head from a plurality of heads, selecting a shaft from a plurality of shafts, and testing the club in order to minimize the number of clubs needed to test fit clubs (Col. 1, Lns. 10-35) and in order for a variety of adjustment to the shaft and head structures to be used, tested or evaluated enabling a club to be created which ideally is suited for an individual playing characteristics (Col. 2, Lns. 1-13). Engfer discloses grips with varying sizes enabling precise adjustment for each user and each club increasing the likelihood of finding a grip which closely meets the preferences of an individual or club (Col. 2, Lns. 16-50). In view of Pelz and Enfger it would have been obvious to modify the method of fitting of Anderson to have changing a grip based at least in part on the collected launch data in order to achieve an optimal ball flight, collecting data related to how the golfer's swing launches a ball with the new grip and specifying equipment base on the new grip in order to use, test and evaluate different grips to precisely adjust for each user and each club increasing the likelihood of finding a grip which closely meets the preferences of an individual or club.

Response to Arguments

16. The argument with respect to the objection under 37 C.F.R. 1.71 is agreed with. However the limitation as amended for claim 2 the Examiner was not able to find how one skilled in the art was to perform that process in the disclosure. The argument that the rejection under 35 U.S.C. 112, first paragraph, for claim 2 is improper due to paragraphs 28-33 enabling one skilled in the art is disagreed with. In these paragraphs the Examiner was unable to find how to enable one skilled in the art is to carry out the step of collecting information related to the current Status of the golfer's game and using it to determine whether a golfer's swing technique should be modified. What information should be collected? Based on the information what instruction should be given to a player. The Examiner agrees with the argument with respect to claims 20-21 under 35 U.S.C. 112, first paragraph. The argument that Anderson is improper due to Anderson being directed to fitting a player with a club and not for correcting a golfer's swing is disagreed with. First improper equipment will produce an improper swing by a golfer. Second Evans was used to clearly show a correction in a golfer's swing without changing any equipment. The argument that Anderson is improper for not achieving an optimum ball flight is disagreed with. In paragraph [0051] Anderson discloses determining an optimum club. Clearly for the purposes of golfing the optimum club leads to the optimum ball flight since that is the purpose of a club which is to hit a ball. The argument that Anderson is improper for not disclosing changing certain aspects of a club to achieve optimum ball flight by changing the velocity, spin and launch angle is

disagreed with. Anderson in paragraph [0050] clearly discloses changing shafts to have an appropriate choice. In addition, changing an aspect of a club as the flex of a shaft will clearly change velocity, spin and/or launch angle. The argument that it is improper to modify Anderson for swing technique since it would change the principal operation of Anderson is disagreed with. The objected of custom fitting a club to a player has the objected to provide the optimum club and as such optimum flight of that club for a specific player. Clearly having the right club and having the right swing technique both contribute to that objective. Correcting swing technique as disclosed in Evans goes very well with fitting a best club to a golfer. The argument that Evans and Gobush do not suggest fixing a golfer's wing technique for Anderson is disagreed with. Gobush clearly based on data is instructing a golfer to change swing technique with no mention of changing the club (Col. 18, Lns. 56-58). Evans is also showing correct data for a performance of a club and incorrect data. The club performance is a combination of both the swing and the design of the club. A correct club alone is not going to produce the correct reference lines shown in figure 2 of Evans. It would be a specific swing with a specific club. Evans discloses ideas curves and a golfer's fault (Col. 4, Lns. 1-67). Clearly to have the ideal curve with no golfer fault as shown in figure 2 of Evans implies that a golfer has an appropriate swing technique as well as club. None-the-less Gobush shows an example of correcting a golfer's swing. The argument that Naruo is not prior because it is based on parent application 10/053,797 which has figures 8-9 is strongly disagreed with. Naruo was used to disclose matching velocity with a combination of launch angle and spin rate to achieve maximum distance. This teaching was not in the

parent application. Anderson and Gobush disclose everything claimed with respect to figures 8-9 of parent application 10/053,797. The argument that Naruo and Boehm are improper for not having non-linear relationships between launch angle, velocity and spin rate is disagreed with. The Applicant argued that the method is linear if the method fitted the same club to different golfers with the same head speed but different swings are noted. However since Boehm (Table 1) and Naruo are producing optimum spin and launch angles to maximize distance and these parameters are not dependent on only the club parameters but also on how the club is swung the Examiner believes that Boehm and Naruo must be non-linear relationships for launch angle, velocity and spin rate as well. And Naruo also is discussing after launch parameters and them being dependent on both the club and golfer [0015]. The Examiner believes strongly that Naruo is discussing non-linear relationships as the Applicant is. The argument that Naruo is improper for teaching the launch angle and spin rate can be determined using linear relationships once the velocity is known is disagreed with. First figure 2 shows many combinations of launch angle and back spin where maximum ball flight distance is achieved irrespective of ball speed. Clearly is this not a non-linear relationship? Naruo also states that ball velocity is generally determined by head speed of a golfer and the restitution coefficient of the head [0015]. This clearly does not definitively state that ball velocity is dependent completely on the club. The argument that it is improper to combine Anderson with Gobush, Pelz and Engfer since no teaching suggest changing a parameter to optimize velocity, spin rate, and launch angle relative to each other in order to have optimum ball flight is disagreed with. It is known to replace parts of a club

to form an optimum club (Anderson [0050], [0051]). It is known to optimize velocity, spin rate, and launch angle for optimum ball flight (Boehm, Naruo). It does not seem reasonable that a patent should be given for replacing another component to optimize velocity, spin rate, and launch angle relative to each other in order to have optimum ball flight since it is already known to use components as heads and shafts to do this. The argument that it is improper to use Miller since Miller is talking about technique is disagreed with. Even if Miller is talking only about technique it is well known to control ball height by club design. The argument that it is improper to use Miller because nothing would match the teaching of Miller with Boehm and Naruo is disagreed with. These are only two principals to considering in designing a club. It seems very reasonable for one skilled in the art to incorporate both teachings into club design. The argument that it is improper to combine Miller with Boehm and Naruo since there is no teaching how to have a maximum ceiling height and optimize speed, launch angle and spin rate is disagreed with. Boehm and Naruo disclose how to optimize speed, launch angle and spin rate. Adding the element of a maximum ceiling would just eliminate all possibilities where the trajectory height exceeds this maximum ceiling. The argument that it is improper for the Examiner to make opinion since this is not evidence is disagreed with. The Examiner was making opinions on the evidence. The Examiner brings experience and knowledge as to what one skilled in the art knows. The argument that Miller is improper to use for a fitting process because it makes no suggestion nor can one glean from two short paragraphs is disagreed with. Miller says

a lot about what trajectories are preferred. Velocity, spin rate, and launch angle of a ball at impact will produce a trajectory. Therefore Miller is very relevant to club design.

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen L. Blau whose telephone number is (571) 272-4406. The examiner can normally be reached on Mon - Fri 10:00 AM - 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eugene Kim can be reached on (571) 272-4463. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SLB/23 March 2010

/Stephen L. Blau/
Primary Examiner, Art Unit 3711